

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013018**Date Inspected:** 04-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CWI Inspectors: Mr. Yu Li Qing, Mr. Chen Xi, Mr. Liu Hua Jie

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

Yard between Bay 15 and Blast Shop #1

This QA Inspector observed ZPMC welder Mr. Kua Wen Shau, stencil 054013 is using shielded metal arc procedure WPS-B-P-2114-FCM-1 to make a weld on OBG segment 9DE between panel point PP81 and PP82 as directed by weld repair document B-WR11013 to correct misalignment where cross beam CB12 will be attached. This QA Inspector observed Mr. Kua Wen Shau is welding on the top of a scaffold that is approximately 6 meters above the ground and he appears to be certified to perform this welding. This QA Inspector observed a welding current of approximately 170 amps and the base material was preheated prior to commencement of welding. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container and it appears to be connected to the welding power supply cable. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 13

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This QA Inspector observed ZPMC welder Mr. Cheng Yueying, stencil 050977 is using flux cored welding procedure WPS-345-FCAW-1G(1F)-Repair-1 to make traveler rail repair weld 20TR2-005-011 in accordance with weld repair document BWR11139. This QA Inspector observed ZPMC QC Inspector Mr. Guo Yuan Ting is monitoring this welding and that Mr. Cheng Yueying appears to be certified to make this weld. This QA Inspector observed a welding current of approximately 280 amps and 28.5 volts. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 14

This QA Inspector observed ZPMC welder Mr. Hong Liang, stencil 200113 has recently used shielded metal welding process WPS-B-T-2233-B-U2-F to make OBG segment 12AE weld SEG3001H-041 near panel point PP111. This QA Inspector observed QC has measured a welding current of 159 amps and Mr. Hong Liang appears to be certified to make this 4G position (overhead) weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Hue Junrong, stencil 201215 has recently used flux cored welding procedure WPS-B-T-2133 to make OBG 12AW deck plate weld DP3069-064 between closed ribs and diaphragm plates. This QA Inspector observed CWI Mr. Liu Hua Jie has recorded a welding current of 210 amps and 26 volts. This QA Inspector observed Ms. Hue Junrong appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Lv Fengbao, stencil 045175 is using flux cored welding procedure WPS-B-T-2132 to make OBG segment 12AW welds SEG3004D-012 and SEG3004D-013. This QA Inspector measured a welding current of approximately 210 amps and 26.0 volts. This QA Inspector observed Mr. Lv Fengbao appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Ji Hongwei, stencil 058245 has recently used flux cored welding process WPS-B-T-2133 to make OBG segment 12AW weld SEG3004F-014 and SEG3004F-017. This QA Inspector observed ZPMC QC CWI Mr. Liu Hua Jie has recorded a welding current of 210 amps and 25.7 volts. This QA Inspector observed Mr. Ji Hongwei appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Bing, stencil 047866 has recently used flux cored welding process WPS-B-T-2233-B-U2-F to make OBG segment 12AW weld SEG3004E-008. This QA Inspector observed a welding current of approximately 310 amps and 25.5 volts. This QA Inspector observed Mr. Wang Bing appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhang Yaobing, stencil 204730 has used flux cored welding procedure WPS-B-T-2132 to make OBG segment weld DP3055-011 between closed ribs and diaphragm plates. This weld is to be installed in OBG segment 12AW. This QA Inspector observed ZPMC CWI Mr. Liu Hua Jie has recorded a welding current of 309 amps and 30.8 volts. Items observed on this date appeared to generally comply with applicable contract documents.

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This QA Inspector observed ZPMC welder Mr. He Hanbi, stencil 201222 is using flux cored welding procedure WPS-B-T-2132 to make OBG segment 12AW weld DP3056-052. This QA Inspector observed a welding current of 310 amps and 32.4 volts and ZPMC CWI Mr. Liu Hua Jie has recorded a welding current of 307 amps and 31.5 volts. This QA Inspector observed the base material was preheated prior to welding and that Mr. He Hanbi appears to be certified to make this weld and the base material has been preheated prior to welding. Items observed on this date appeared to generally comply with applicable contract documents. See the photograph below for additional information.

This QA Inspector observed ZPMC welder Mr. Wang Bing, stencil 046896 is using flux cored welding process WPS-B-T-2233-B-U2-F to make OBG segment 12AW weld SEG3004E-008 near panel point PP112. This QA Inspector observed a welding current of approximately 310 amps and 29 volts. This QA Inspector observed Mr. Wang Bing used a torch to preheat the base material prior to welding and he appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
